



## MAP 2302–3731 (Spr 2016)

### Time and Location

M W F Period 9 in Little Hall Room 113

Office Hours: TBD

### Textbook

Main Textbook: Differential Equations with Boundary Value Problems, 8th Ed by Dennis G. Zill and Warren S. Wright.

This textbook is available directly from Cengage at <http://www.cengagebrain.com/course/1-23QARHT>. They claim that this is a discount over the typical retail price, but please do your own research before taking their or my word for it! An access code for Webassign (included with a new copy of the textbook) is **required** for the online homework, but the homework is **not mandatory**. See the grading section for further details.

Alternate Textbook: Fundamentals of Differential Equations and Boundary Problems, Sixth Ed. by R. Kent Nagle, Edward B. Saff, and David Snider.

This book will not help you get access to the online homework, but it contains all of the relevant material and a wealth of practice problems. This was the required text for this class in semesters past. You might be able to find a cheap used copy since it is being phased out.

### Description and Goals

Many problems, particularly those arising in science and engineering, are naturally stated in the language of differential equations. In this course, students will study solution techniques for ordinary differential equations (ODEs) and apply them to problems from the sciences. Broadly speaking, we will develop ad hoc solution techniques for special types of first order ODEs and more general solution techniques for higher order linear ODEs including the method of Laplace Transforms and power series methods. This roughly corresponds to chapters 1,2,4,6, and 7 from the textbook with some omissions.

### Homework

New homework exercises will be posted on Webassign. Instructions to enroll will be posted on Canvas. The system is free to use for a few weeks, but after this period you will be required to purchase an access code. There is no other way to access online homework but the homework is **not mandatory**. Exercise numbers will be posted on Canvas, but only online homework will be graded. See the grading section for more details.

### Quizzes

We will have two quizzes prior to each exam for a total of 8 quizzes. Quizzes are meant as checkups for the exams. Combined, they will count for as much as an exam.

### Exams

We will have four in-class exams corresponding roughly to the material in chapter 2, 4, 6, and 7 respectively. The plan is to have exams during our usual class time since night exams create scheduling conflicts, but it is not out of the question for us to switch to evening exams.

### Grading

Each in-class exam contributes 20% of the course grade and quizzes provide the final 20%. If you have done the online homework, then the homework will count for 10% while the exams and quizzes will each count for 18% of the final grade.

Final grades are assigned on a twenty point scale (100-80 for A, 60-79 for B, etc.) with the top and bottom five points reserved for plus and minus grades (80-85 is A-, 75-79.99 is B+, and so on).

### Tentative Weekly Schedule

Emphasis should be placed on tentative for this schedule. We may move more quickly or slowly depending on the class's understanding, and we may omit or add sections based on class interest.

Week 1, 1/6-1/8: 1.1-1.3  
Week 2, 1/11-1/16: 2.1-2.3  
Week 3, 1/20-1/22: 2.4-2.5 (MLK Day on 1/18)  
Week 4, 1/25-1/29: Exam 1 (On Ch. 1 and 2), 4.1  
Week 5, 2/1-2/5: 4.2-4.3  
Week 6, 2/8-2/12: 4.4-4.5  
Week 7, 2/15-2/19: 4.6-4.7  
Week 8, 2/22-2/26: 4.8, 4.10, Exam 2 (On Ch. 4)  
Spring Break: 2/29-3/4  
Week 9, 3/7-3/11: Section 7.2-7.3  
Week 10, 3/14-3/18: Section 7.4  
Week 11, 3/21-3/25: Section 7.5  
Week 12, 3/28-4/1: Exam 3 (on Ch 7), Section 6.1  
Week 13, 4/4-4/8: Section 6.2, 6.3  
Week 14, 4/11-4/15: Section 6.3-6.4  
Week 15, 4/18-4/20: Exam 4

Final Exam date and time to be announced.

### Other Information

- This course will enforce the academic honesty policy which can be viewed at the following link: <https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx>
- Students seeking disability must first register with DSO (<https://www.dso.ufl.edu/>). They will then be provided with an accommodation letter which should in turn be provided to the instructor. Accommodations cannot be provided until the instructor has received this letter.
- Various important dates such as the drop date can be found at <https://catalog.ufl.edu/ugrad/current/Pages/adspring1516.aspx>.